



## ENVIRONMENTAL DEFENSE

finding the ways that work

August 9, 2005

Secretary Mike Chrisman  
California Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Subject: Restoring Hetch Hetchy Valley in Yosemite National Park

Dear Secretary Chrisman:

In the interest of compiling a more complete record that will allow the Resources Agency fully to review existing studies on the benefits and impacts of restoring Hetch Hetchy Valley, Environmental Defense provides the following response to a letter you received from the Bay Area Council dated July 5, 2005. This response deals with the factual allegations set forth in that letter.

- 1 As Environmental Defense's study, *Paradise Regained*, makes clear, the Turlock and Modesto Irrigation Districts own and manage Don Pedro Reservoir. However, as our study also makes clear, lengthy negotiations between San Francisco on the one hand and TID and MID on the other concluded in an agreement under which San Francisco may "bank" up to twice the amount of water O'Shaughnessy Reservoir can hold in Don Pedro. This allows San Francisco to divert water upstream at times when its water rights would not otherwise allow such diversion, as it transfers water it has banked to the Districts' accounts. Modeling studies that Environmental Defense and UC Davis have provided to the Department of Water Resources show that an intertie to Don Pedro Reservoir, coupled with diversions from the Tuolumne River upstream, could replace more than 96% of the water supply benefits that Hetch Hetchy Reservoir provides, without reducing water supply for TID or MID, leaving only 4% to be made up using other projects and programs. While *Paradise Regained* clearly acknowledges that the Districts would ultimately have to agree to such a use by San Francisco of a Don Pedro Intertie, it also notes that amendments of the agreements between the Districts and San Francisco have been as frequent as they have been contentious over the life of the relationship among these parties.
2. It is true that, under current conditions, supplies held in Cherry and Eleanor Reservoirs are occasionally released by San Francisco to meet its water rights obligations to the Districts. With a restored Hetch Hetchy Valley, however, more of the Tuolumne River would flow naturally into Don Pedro, diminishing the need to make releases to the Districts from Cherry and Eleanor. Environmental Defense modeling studies show that an intertie from Cherry Reservoir, coupled with diversions from the Tuolumne River upstream, could replace more than 95% of the water supply benefits that Hetch Hetchy Reservoir provides, without a Don Pedro Intertie and without causing any harm to the Districts.

3. It is important to note that the alternatives Environmental Defense has proposed focus on continued delivery of high-quality Tuolumne River water to San Francisco and other Bay Area communities. We do recommend that San Francisco filter all of its supplies and have found that, with filtration, water quality is likely to be improved, at least with respect to some pathogens of concern, such as giardia and cryptosporidia. Contrary to the Council's assertion, the costs of filtration *are* included in *Paradise Regained*.
4. Since the water supply alternatives Environmental Defense have presented principally involve reoperation of reservoirs in the Tuolumne watershed, it is unlikely that there would be any appreciable effect on the Delta if these alternatives should be pursued. It is worth noting, however, that San Francisco does not contribute any water to the Tuolumne River below Don Pedro or to maintain the health of the Bay-Delta. This should be a concern both to the Resources Agency and to the Bay Area Council. It should also be noted that San Francisco has in fact diverted water from the Delta under emergency conditions. Environmental Defense believes San Francisco should continue with this policy and should consider interties that would ensure physical access to the California Aqueduct and other nearby state and federal facilities under emergency conditions.
5. Environmental Defense agrees that tearing down O'Shaughnessy Dam would require a significant effort. We support independent investigation of the costs and environmental consequences of dam removal. We also support consideration of breaching the dam in such a way that would allow the river to pass through it and the valley to be restored. Under such a plan, the ultimate decision on dam removal could be deferred.
6. Environmental Defense modeling indicates that between 20% and 40% of the hydropower produced by San Francisco's three generating facilities in the Tuolumne watershed would be lost, if Hetch Hetchy were to be restored. At most, the system's hydropower losses would account for 0.3% of California's total electric power consumption. We have proposed that the energy generated by these plants be principally replaced by renewable resources such as wind and solar, or by investments in energy efficiency. Even in the highly implausible event that it were replaced by oil-fired generation, the Council's estimate of 39 million barrels per annum is more than 25 to 50 times the amount that would be required<sup>1</sup>. The suggestion that reducing hydropower production on the Tuolumne River would cause the dirty and obsolete Hunter's Point and Potrero power plants in San Francisco to continue operating is a red herring. The delay in their decommissioning is due to concerns about *local* reliability in San Francisco resulting from transmission bottlenecks on the Peninsula. The California Independent System Operator has agreed to release the plants from Reliability Must Run

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<sup>1</sup> Using industry values of 5,800,000 btus per barrel of oil and a conservative 12,000 btus per kilowatt-hour for electricity production, 39 million barrels of oil would produce 18,850 gigawatt-hours, more than 10 times the annual production of all San Francisco's hydropower facilities. As described in detail in *Paradise Regained*, only 20-40% of the total hydropower provided by the city's Tuolumne River facilities would be lost were O'Shaughnessy Dam to be decommissioned.

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contracts, allowing retirement to proceed, upon completion of ongoing projects to upgrade transmission lines into San Francisco and develop new backup capacity in the City.

Replacing Tuolumne River hydropower with energy from another source that is also located outside the City would have no bearing on this purely local issue. Hopefully, the Bay Area Council will join with environmental justice advocates, Environmental Defense, and many others, in assuring that the Hunter's Point and Potrero plants will be decommissioned long before there is a decision made on the decommissioning of O'Shaughnessy Dam and the restoration of Hetch Hetchy Valley.

- 7 Restoring the once-spectacular Hetch Hetchy Valley would provide great benefits to people throughout California, across America and around the world. To determine whether people are willing to pay for such an opportunity, it is first necessary to comprehensively investigate what the costs and benefits of restoration might be. Eventually it is likely that Congress, the State Legislature, and local authorities might be asked to consider legislation related to the restoration of the Valley. It seems premature at this time to speculate on what the outcomes of that consideration might be.
8. Environmental Defense supports an open public process in which water and power alternatives, as well as a management plan for the valley, can be developed. What litigation might be filed once restoration is pursued is, at this point, also a matter of speculation.
9. Environmental Defense agrees that water system planning should consider the changes in precipitation and runoff that global warming may bring. We have encouraged the Department of Water Resources to incorporate global warming in all its water planning exercises and agree that it should be a factor in considering the restoration of Hetch Hetchy Valley.
10. There is no reason that pursuit of a plan to restore Hetch Hetchy Valley should delay the repairs that should be made to make the system seismically sound. In 2003, we worked with Congresswoman Nancy Pelosi and then SFPUC General Manager Pat Martel to streamline the federal permitting process for the system's urgently needed repairs. To the extent that the SFPUC considers elements that would significantly expand the water supply system, however, we do ask that restoration of Hetch Hetchy Valley be investigated as an alternative.

Thank you for your interest in this matter.

Sincerely,



Spreck Rosekrans  
Senior Analyst

Cc: Mr. Gary Bardini, Department of Water Resources